

Direct Photon-Hadron Correlations Measured at PHENIX

Megan Connors for the PHENIX Collaboration

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Direct photon tagged jets are an excellent probe of the quark gluon plasma. The momentum of the photon tags the initial momentum of the opposing parton and since photons do not interact via the strong force, they escape the medium unmodified. By studying the yield opposite the photon in direct photon-hadron correlations, we measure the quark fragmentation function in p+p collisions and quantify the effective modification to the fragmentation function in Au+Au collisions due to energy loss and medium response. Direct photon-hadron correlations have been measured with the PHENIX detector in p+p and Au+Au collisions at $\sqrt{S_{NN}} = 200\text{GeV}$ at RHIC. An established statistical subtraction to remove the large contribution of decay photons from the inclusive photon sample is employed in the Au+Au measurement while for p+p collisions event by event techniques are also applied. The latest results which extend to lower z_T can be compared to energy loss models.